MAG

THE AUSTRALIAN ATARI GAZETTE

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March 1991

10th March 10:30am start.

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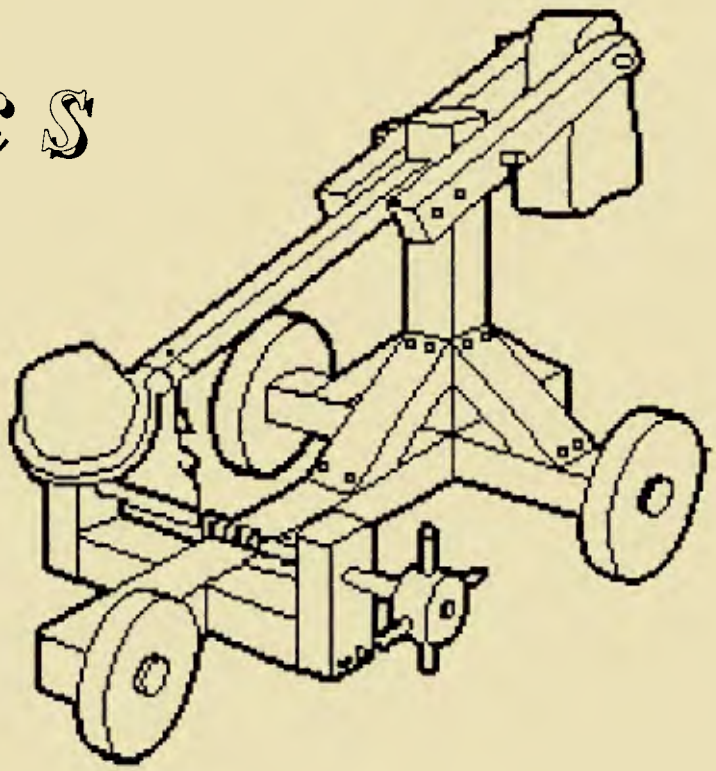

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Monthly Journal of the MELBOURNE ATARI COMPUTER ENTHUSIASTS INC.
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MACE Meeting Dates

10th March 1991
14th April 1991
12th May 1991
9th June 1991
14th July 1991 **AGM**
(Annual General Meeting)
11th August 1991
8th September 1991
13th October 1991
10th November 1991
8th December 1991
(Annual BBQ - Blackburn Lake)

This month'sTopics:

CAD/ Graphics

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15. Book Review: Synthesizers
16. The Pawn. How to Play the Game
19. 8 Bit BASIC. Graphics
23. Review: HiSoft Lattice C V5
25. Z-Net (U.S.A.)

MACE 1982- 1991

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for APRIL1991 issue:

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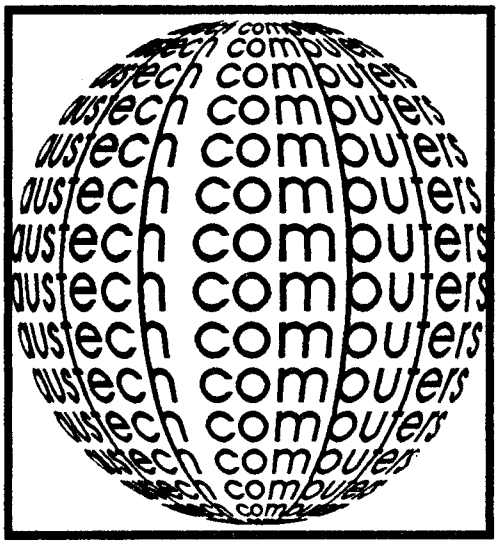

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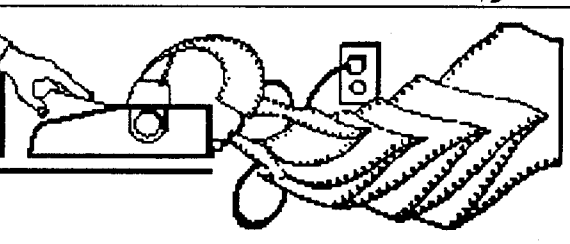

Another month has arrived and members will certainly be reminded that our next meeting is on CAD.

Below is the suggested themes for the following months:

MARCH	CAD/Graphics
APRIL	Desktop Publishing
MAY	Midi Packages
JUNE	Printers and Programs

We are sad to announce that Frank Cohen (USA) has informed us that REGENT SOFTWARE has officially closed their doors. MACE had received many an article from Frank on his company products and we are sorry to hear that things did not go so well in the States. A copy of the letter sent to MACE will be available at the next meeting.

BRADEN RAY Software in South Australia has sent a listing of software that is available from them. If anyone is wanting a look, please see me at the next meeting.

A new newsletter from Branch Always Software (USA) called Brasoft News has been forwarded to MACE. They are offering some discounts to members on software such as **Quick ST II** and **Quick Tools.** Again see us at the meeting for a sneak preview of the newsletter.

A company in South Australia called RAC'S Models and Electronics has an IBM AT Emulator for the Atari ST and Amiga 500. Details at the meeting.

Atari Pen Pal Wanted for:

Mr Rizwan Ahmed
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I would like to draw members attention to our bulk purchase this month. Due to restrictions our deadline for this will be the next meeting.

Best of computing and see you at the next meeting.....

Neil.

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TREASURER'S REPORT

It's been a while since I've done a Treasurer's Report. The last was in December with October details. Okay, so you know how it is to get motivated in the New Year, we all go through it!!
Well if I say too much here, I'm not going to get three month's worth of catching up done. Enough said, so here we go.

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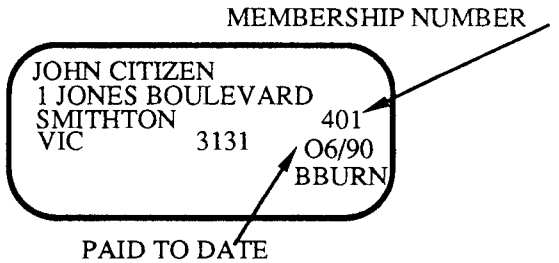

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WHAT IS MIDI ?

by Brian Campbell

Every Atarian has noticed those two strange connectors on the left hand side of their machine (well the 520STFM and 1040STFM owners will find them there), most know they are called 'MIDI ports' and have something to do with music, but few understand what they actually do. In this article, I hope to de-mystify the function of these ports and maybe open up some non-musical possibilities for them.

The Musical Instrument Digital Interface (MIDI for short) is an industry standard interface for interconnecting musical instruments from various manufacturers. It allows musos to buy one good keyboard and then run all of their other instruments from it. In fact, most manufacturers sell units called 'sound modules' which are basically synthesizers without a keyboard. MIDI messages are passed from the keyboard to the sound module when a key is pressed making the two units operate as a single instrument.

This raises the first misconception regarding MIDI. The MIDI ports do not pass any information about the characteristics of the sound itself. It has absolutely nothing in common with programs like ST Replay which merely digitize and replay sound samples. Consider a pianist playing a piano. The pianist is playing the piano, but the piano is actually generating the sounds. Think of MIDI as the pianist pressing and releasing keys on the keyboard. The synthesizer is analogous to the piano in that it is the device actually generating the noises.

You should now see how the Atari fits into all of this. By replacing the keyboard with a computer, MIDI messages recorded in the computer can be replayed into a synthesizer. Unlike a human, the computer is not limited to ten fingers and can play complex pieces far faster and more accurately.

An unfortunate side effect of the computer playing more accurately than a human is that the resultant music sounds very 'stiff' and precise and lacks the free feel of live music. To get around this problem, the computer can record a person playing a keyboard with sufficient accuracy that the music will retain a 'human' feel. Again, we get back to the human limitation of ten fingers. This can be overcome by laying down a number of tracks into the computer one at a time. Each track is recorded by playing the keyboard while listening to the previous tracks being played. Eventually, one person can produce the sound of an entire orchestra.

Wait a minute! An orchestra has violins, trumpets, flutes, trombones, and an entire percussion section to name but a few instruments. How can one synthesizer and one computer sound like all of that ? Firstly, although MIDI messages run along a single cable, MIDI supports up to 16 independent 'channels'. Just as all radio stations use the 'airwaves' as a common medium, our radio tuners can tune into a single radio station, rejecting the signals from all others. In a similar fashion, MIDI instruments can tune into one or more of the MIDI channels, rejecting all of the others. Each instrument (violin, trumpet, etc) is assigned to a channel so when notes are played on channel 1 you may hear a violin sound. When notes are played on channel 2 you may hear trumpets. Notes played on channel 3 may produce a piano, and so on.

Does this mean a synthesizer can only play one of sixteen sounds ? No self respecting synthesizer is so limited. In addition to note on and off messages, MIDI

provides 'program changes' which select one of up to 128 sounds and assigns it to a channel. You may instruct the synthesizer on channel 1 to select a violin , the synthesizer on channel 2 to select a trumpet, and the synthesizer on channel 3 to select a piano.

From the above you should see that our one man orchestra could get expensive if a synthesizer is required for each voice. Fortunately, the manufacturers have come to our rescue by producing 'multi-timbral' synthesizers. These behave like two or more independent instruments, receiving MIDI messages on a number of channels and playing the appropriate voices. The number of voices which can be played simultaneously varies from one synthesizer to the next. The Casio CZ 101 and CZ 1000 can play four instruments at once (but only one note at a time on each). The Roland MT32 sound module can play up to eight instruments and 32 notes at once. Not bad for a few hundred dollars.

Percussion instruments provide a unique problem. There are just so many of them that if each instrument had to be assigned to its own channel, you could easily run out of channels building up even a basic drum kit. Fortunately, percussion instruments are not melodic as they can only produce sounds of one pitch (or no pitch, depending on how you look at it). To save channels, all percussion instruments are generally found on one channel and are distinguished by the note being played. When playing a low C on the percussion channel, you may get a bass drum, the D above may produce a snare drum, an F will give you a high tom-tom, etc. The Roland MT32 provides about 30 different percussion sounds on its percussion channel - other synthesizers can produce more.

As I stated earlier, MIDI is an industry standard interface. As anyone who has been involved with industry will know, the one thing they can not do is stick to a standard. MIDI is no exception, however, the designers of MIDI took this into account and provided a mechanism to allow for each manufacturer to create unique facilities for their particular machine. These are known as 'System Exclusive' messages and are usually used to modify the sound itself (eg. to turn a guitar sound into a banjo, or create an electronic fuzz sound with a wah-wah effect and an explosion at the end). The system exclusive message is designed to allow all synthesizers not able to understand the message (ie. not made by the required manufacturer) to ignore the message without crashing in a screaming heap.

With all of these wonderful capabilities, MIDI must be extremely complex. Nothing could be further from the truth (other than political promises)! The real beauty of MIDI lies in its simplicity. The hardware is nothing more than a simple serial port like your modem port. For the technically minded, it runs at 31.25 kbits/sec (I wont bother explaining why), uses 8 data bits and one stop bit, no parity, and comes out in a 5 mA loop. Unlike the other serial port on the Atari, there are no control signals (CTS, RTS, CD, etc) and the input and outputs appear on separate connectors (no need for the MIDI equivalent of null modems).

Because there is nothing fancy about the MIDI port, it has been used on Ataris to provide a simple network and for playing 'MIDI maze' games. Both applications have nothing to do with music.

Hopefully, this article has taken the mystery out of those mysterious sockets on your Atari.

Defaultdriver Plus

by Peter Bailey
for the 8 Bit Atari Computer

The following short program makes several alterations to AtariWriter Plus printer driver F (XMM801). Before making any changes please refer to Tech Tips July 1988 and May 1989 and follow the instructions for modifying AP.OBJ.

Each data line contains the total information for each alteration and may be deleted if not required. The format for each line is (XL Version) sector, byte, (XE Version) sector, byte, number of bytes to change and data. In some cases the format is repeated until all the necessary alterations are made. NOTE: Do not alter the DATA statements.

Line 80 changes [SELECT] [.] from Double Strike (two passes) to Bold (one pass). NOTE: Bold is only available with Pica.

Line 90 changes [CONTROL] [G] 4 (superscript) and [CONTROL] [G] 5 (subscript) from condensed to current type face or selected type face, e.g. for elite subscript when using pica select elite first and then condensed, [CONTROL] [G] 6 [CONTROL] [G] 5, then return to pica, [CONTROL] [G] 1, when subscript is finished.

Line 100 allows selection of condensed after using elite. Previously this was not possible as elite was not cancelled first. This is done by having condensed first select pica (to cancel elite) and then sending the required printer code.

```
EO 10 V=2:OPEN #1,12,0,"D:AP.OBJ":NOTE #1
   ,S1,B1:S2=S1+194:B2=B1+20
YW 20 POINT #1,S2,B2:GET #1,A:IF A=224 TH
   EN V=1:REM XL VERSION
QF 30 READ A:IF A=-1 THEN 70
EI 40 READ B,C,D,E:S=S1+A:B=B1+B
GI 50 IF V=2 THEN S=S1+C:B=B1+D
PN 60 POINT #1,S,B:FOR X=1 TO E:READ Y:PU
   T #1,Y:NEXT X:GOTO 30
YA 70 CLOSE #1:END
LG 80 DATA 191,123,27,57,1,70,192,1,27,60
   ,1,69
CJ 90 DATA 192,42,27,101,1,17,192,51,27,1
   10,1,17
SQ 100 DATA 192,15,27,74,19,7,27,19,27,84
   ,27,112,0,9,27,19,27,20,27,84,27,112,0
   ,6
FY 110 DATA -1
```

The screen color of AtariWriter Plus is 144. If you would prefer a less contrast border, why not use 146 instead of 0. To make to change simply add the following line to the above listing. You may prefer to preview the combination first, so with BASIC type 'POKE 710,144:POKE 712,146'.

* * GFAGEN5 . . . Brian LEHNE * *

GFA.BASIC Version 3. Tips from one who has learnt the hard way - No.5

* A PROMISE *

As promised in GFAGEN4 I shall cover the hidden Mouse Cursor Syndrome. I will not include any Program, however, if you wish to try the Routines out enter the Code & the Procedures listed below into GFAGEN4.

If the Background Color is Dark the Cursor will be Bright & of course the opposite will also apply. The Cursor Mask will be the same color as the Background Color Æbut then that is only the normal choiceÅ.

Still to follow some Routines for Animated Screen Displays

* REMINDER *

These Procedures allow for the ARRAY Colpal%() to be filled with the Palette Colors, if used in any other Routines this will have to be fulfilled or altered to suit. The procedure COL_OPP(Group%) is not necessary in Programs that run in High Resolution only.

* A SUMMARY *

Before we can define the Mouse Cursor we have to find an Opposing Color to the background, this is done by Procedure COL_OPP(Group%), once this is done we can then branch to the Procedure DEF_MOUSE to define the Mouse. Remember: when using this Redefined Mouse each time a New Picture is loaded the Program will have to branch to these Procedures using: ÉCOL_OPP(48)

From GFAGEN4 - 0 for the Default Colors.
16 for Blanking the Screen
32 for the Program Colors.
48 for the Picture Colors.

* EXTRA CODE *

Enter this code into GFAGEN4 as the last 3 lines of Procedure COLSET(Group%):

```
IF group%=48
  Écol_opp
ENDIF
```

```
  ++++++++++++++++++ Uncomment this line already in GFAGEN4 ++++++++++++++++++
  DEFMOUSE Mc$
  ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
```

* PROCEDURES *

```
  >>>>>>>>>>>>>>>>>>> COL_OPP <<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<
  ---- Find an Opposing Color to Background Color for use as Mouse Cursor Color
PROCEDURE col_opp
  foundcol!=FALSE
  IF res%<2
    RESTORE matchcol
    '  Break down the elements of the Color 0 to find - Red Green Blue values *
    red%=DIV(colpal%(48),256)
    grn%=DIV(SUB(colpal%(48),MUL(red%,256)),16)
    blu%=SUB(SUB(colpal%(48),MUL(red%,256)),MUL(grn%,16))
    check%=ADD(ADD(red%,grn%),blu%)        ! Add R. G. & B. to obtain a value *
    FOR j%=49 TO ADD(48,cmaxø)                                  ! Low=15 Med=3 *
      READ match%                                      ! Match SETCOLOR to COLOR *
      '    Break down the elements of each Color to find - R2. G2. B2. values *
      red2%=DIV(colpal%(j%),256)
      grn2%=DIV(SUB(colpal%(j%),MUL(red2%,256)),16)
```

```
      blu2%=SUB(SUB(colpal%(j%),MUL(red2%,256)),MUL(grn2%,16))
      anti%=ADD(ADD(red2%,grn2%),blu2%) ! Add R2. G2. & B2. to obtain a value *
      IF red%>4 OR grn%>4 OR blu%>4          ! We are looking for a Dark Color *
        IF anti%<check%              ! If Anti%<Check% enter - else give it a miss *
          check%=anti%    ! Change Check% to the New Color for next comparison *
          opp_col%=match%          ! The last value entered here sets the Color *
          foundcol!=TRUE
        ENDIF
      ELSE                                    ! We are looking for a Bright Color *
        IF anti%>check%              ! If Anti%>Check% enter - else give it a miss *
          check%=anti%
          opp_col%=match%
          foundcol!=TRUE
        ENDIF
      ENDIF
    NEXT j%
  ENDIF
  IF foundcol!=FALSE
    opp_col%=1                     ! Default for High Res & if no Opp_col% found *
  ENDIF
  Édef_mouse
  CLR red%,grn%,blu%,check%,red2%,grn2%,blu2%,anti%,match%
RETURN ! eeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeee End Pro COL_OPP
                          This DATA changes the order to COLOR from SETCOLOR. *
matchcol:                                 ! ÆMed Res will read the 6 as a 1Å *
DATA 2,3,6,4,7,5,8,9,10,11,14,12,15,13,1


  >>>>>>>>>>>>>>>>>>>> DEF_MOUSE <<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<
  ---------------- Format Mouse Cursor Shape using Opposing Color to Background

  DEFMOUSE:
       Defmouse can use up to 16*16 Pixels across & down, where the Bitpattern
  is defined as a Character String.

       Bitpattern$=Mki$(X) - the Hot Spot or Action Point in the X Plane.
                  +Mki$(Y) - the Hot Spot or Action Point in the Y Plane.
                  +Mki$(1) - always 1
                  +Mki$(?) - the Mask   Color normally 0.
                  +Mki$(?) - the Cursor Color normally 1 Ænot this timeÅ.
                  +Mki$(?) - the Mask   Bitpattern 16 Words.
                  +Mki$(?) - the Cursor Bitpattern 16 Words.
  The MASK Pattern must be read before the CURSOR Pattern - unlike SPRITES
  where the MASK & SPRITE Pattern must be read alternately.

  Note: the Hot Spot is where the Mouse Click takes place.

  If your about to book in for a hair transplant, through scratching your head
  wondering how to define the Hot Spot in the middle, only fill the Bitpattern
  15 Pixels Wide & High, or at least use an odd number of Pixels.
  Remember the position is from 0 to 15 in X & Y not 1 to 16.

  The Pattern is 16 Rows of 16 Bits per Row with 1 being a Filled Pixel & 0
  being an Empty Pixel.

  For example to form a 15 * 15 Diagonal Cross CURSOR with a Square MASK & the
  Hot Spot in the centre:

PROCEDURE def_mouse
  mc$=MKI$(7)+MKI$(7)+MKI$(1)+MKI$(0)+MKI$(opp_col%)
```

```
  RESTORE mask
  FOR j%=0 TO 15                                                    ! Mask *
    READ dat%
    mc$=mc$+MKI$(dat%)
  NEXT j%
  FOR j%=0 TO 15                                                  ! Cursor *
    READ dat%
    mc$=mc$+MKI$(dat%)
  NEXT j%
  DEFMOUSE mc$                                          ! Define the New Mouse *
RETURN ! eeee
```

DYNACADD

This complete 2-D and 3-D computer-aided design and drafting package is for the professional side of Atari computing. It handles most the functions that AutoCad does and other programs on the IBM, at a fraction of the cost. Its simplicity ensures it is easy to create the required drawing, using the simple icons system, drop-down menus, in-program calculator and keyboard commands.

Using the associated programs that come with this three-disks product, you can assess third-party goods, such as software, printers, lasers, plotters, CAMM systems, high-resolution monitors and digitising tablets. The minimum system requirements are an Atari with 1Mb of memory, 1Mb disk drive and a monochrome monitor. A hard disk and math co-processor are highly recommended.

Drop-down menus are divided into six parts:

1. DESK where information on DynaCadd and any accessories can be found.

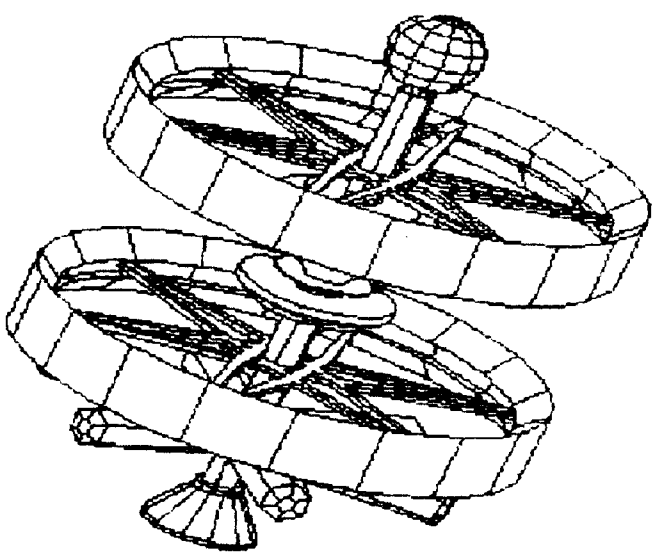
2. FILE for file transfer, clearing, merging and restoring current drawings, database sort, memory status, listing text files, background output and quitting from DynaCadd.

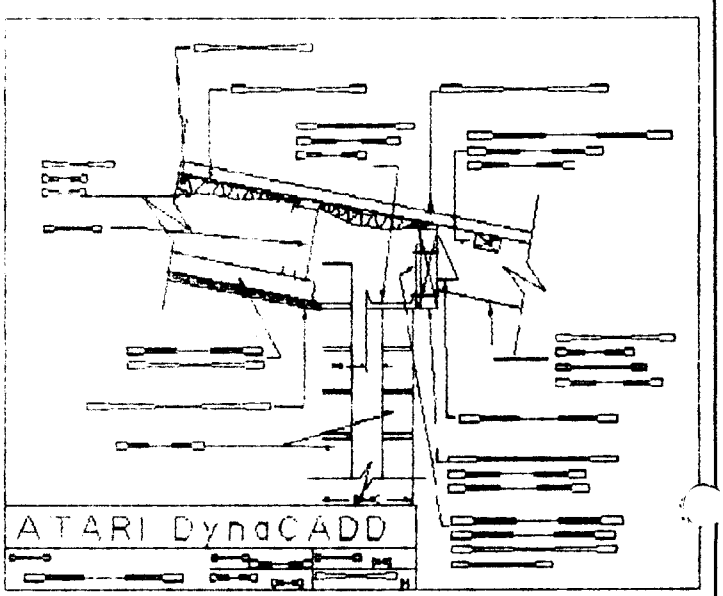
3. SET-UP for drawing, dimension, track, grid, axis, pen style and indexes, hatch patterns and digitizer.

4. TOOLS changing screen colours, displaying screen information and to copy entities.

5. IMAGES recalls difference views of a drawing.

6. GCP displays system or user-defined geometr coordinate planes.





After booting the system, you enter the system level, in which you tell DynaCadd the initial set-up of parts and drawing names along with the scale, units and page size. Units can be inches, feet, yards, miles, millimetres, centimetres, metres and kilometres. Pages sizes are A, B, C, D, E, AA, AB, AC, AD, AE, A4, A3, A2, A1, A0. Once completing system level you enter the main part of the program, cadd level. Cadd level is divided into four main areas.

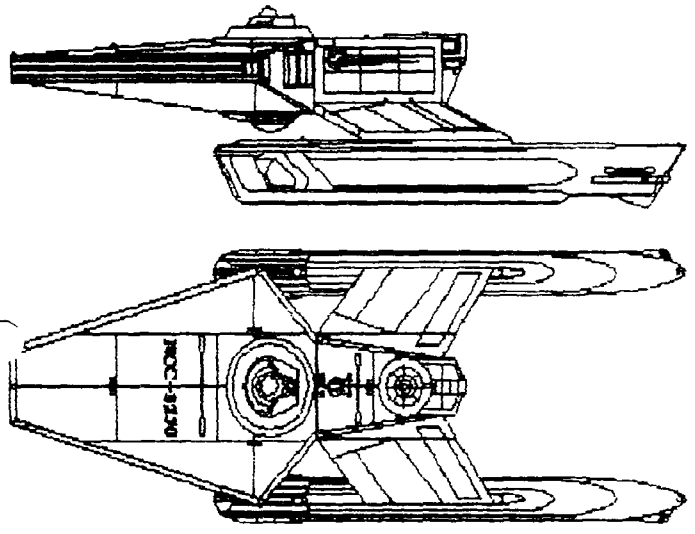
The first is the drop-down menus across the top of the screen; the second is the icons or pads menus down theleft side; the third is the drawing area control icons just below and to the right of the drop-down menu and the fourth is the drawing area itself.

Icon or pad menus are divided into four areas to display the available commands and modifiers.

Pad 1 is for selecting first level or primary commands like insert, dimension, create, and output. Pads 2 and 3 are used for sub commands of pad 1. Pad 4 is reserved for the various entity and location selection commands.

For example, clicking on the insert icon on pad 1 will activate pad 2 icons, with the choices of points, fillets, polygons, sections, hatching, text, ellipses, lines, circles, elliptical arcs, subfigures, solids, polyfigures, boxes, arcs and delete. Choosing line on pad 2 will bring the following modifiers to pad 3, location, ortho, vertical, horizontal, perpendicular,

parallel, tangent between arcs, tangent from locations, line angle and line length. Using pad 4 you can select x, y, z, locations, set relative angle and polar increment, on or end or intersection of entities and so on.



The transform icon on pad 1, allows the user to modify existing entities. The options you have are as follows: delete which will remove all selected entities; trim which allows entities to be trimmed; divide will break an entity into separate entities; translate moves entities from onelocation to another(this function will also allow you to copy entities); rotate will rotate entities around a given point; mirror allows selected entities to be mirror, on the other side of a given line; modify will change the attribute of the entity; stretch will stretch entities along any or all axes by a definable ratio; scale allows entities to be resized; equal distance puts points along entities at equal spaces; project extrudes a group of entities along the z axis; revolt will rotate entities about a revolution vector; sweep will generate entities along the z axis; array will move and copy a group of entities from one location to another along each of the axes a number of times; mask will hide entities temporarily; unmask will restore hidden entities; burnview will convert 3-D entities into 2-D entities.

The drawing control icons allow the use of a screen buffer, show the command history, zoom to full drawing, zoom drawing to last view, zoom in, zoom out, zoom all, zoom using a window, scrolling, centre and refresh drawing.

Pressing the help key when any icon or menu is highlighted will bring up a help screen, that explains what that item does.

File transfer in this program is excellent, allowing you to transfer files with other software and computers, making it the best computer system for your homework.

File format included DXF, DEF, ASC and IGES . You can save your AutoCad on a 3.5 IBM formatted disk in DXF or IGES file format, bring it home boot DynaCadd on your Atari, stick your disk load it in and away you go.

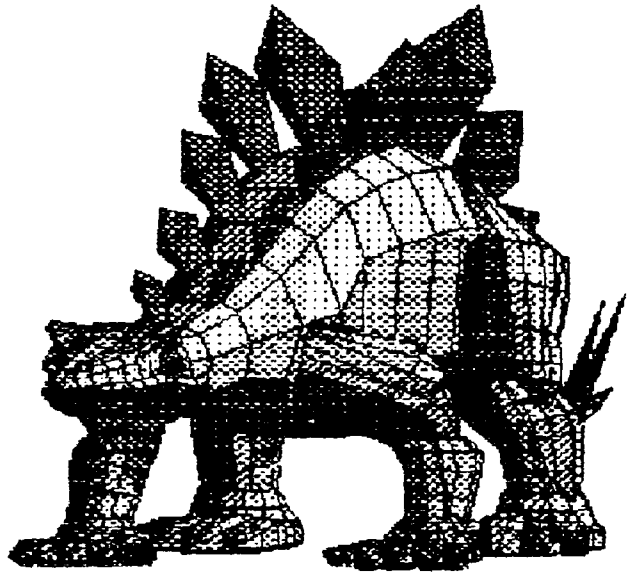
DynaCadd also comes with a program that allows you to use Cyber Studio Stero Cad 3D Animation object files. This enables you to have a pipeline from one of Atari's top animation software suites, that includes not only Cyber Studio, but Cyber Paint, Cyber Sculpt and Cyber Control. Not only do you have a true drawing package, but with Cyber Studio you can animate your drawings.

Using the font editor program, you can create new or edit existing fonts. It's ease of use is like DynaCadd - icon driven.

Future development of the program will allow you to customise applications to third-party products using a developer's kit, which will include its own program language.

DynaCadd is expected to be released on other computers, Mac SE, Mac II, Compaq, IBM and other compatibles.

Overall, DynaCadd has one or two quirks but compared to the first version, it appears they will iron out easily. DynaCadd is what would be expected for a program of this calibre; you can be assured that this piece of software will go a long way.



MEGA COMPUTERS HINTS FOR CHAOS STRIKES BACK
Faults with the Hint Oracle on the Utility Disk
Reviewed by Fred Brown

1) **The Door with No Lock.** Two floors up from the Demon Director, accessed by stairs and has an alcove to the left of it. This door has a teleporter behind it which leads to the Demon Chamber. The Hint Oracle says that a green gem is needed to open this door. My party had a green gem yet the door remained closed. Only after recovering the fourth corbum piece, and then returning to this door, would it open.

2) **The Locked Door in the Cistern on Level Four.** This door has an apple behind it and a secret exit. The Hint Oracle said that a gold key was needed to open this door. It turned out that a black onyx key was needed and not a gold key. Using a gold key on this lock had no effect.

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THE COMPLETE SYNTHESIZER BY DAVID CROMBIE - A REVIEW

By Frank Brown

The aim of this book is to familiarize the reader with the fundamentals of electronic music and, in particular the basic functions and struicture of an electronic synthesizer. Although this book is written for people with little or no knowledge of synthesizers, an experienced user would find that it contains a great deal technical and background information on sound and how it is made electronically .

The topics covered are;

- Understanding sound, what is sound, the elements of sound, waveshapes and waveforms.
- The synthesizer voice module, voltage control, what is a voltage controlled oscillator, noise, filters and mixers.
- The amplifier, envelope generator and low frequency oscillator, timbre, cross modulation and ring modulation.
- The keyboard, pitch bender, modulation, touch sensitive keyboards, portamento and glissando.
- Types of synthesizer, guitar, wind and percussion synthesizers. Computer based systems, additive direct synthesis.
- Using the synthesizer, abstract (or imaginative) and imitative synthesis.
- Synthesizer accessories, an introduction to sequencers, footpedals and effects units.
- A history of the synthesizer.

This book is very comprehensive as you can see from the list of topics covered and most are covered in fair detail. However, as this book was written in 1982 the contents have dated somewhat. Progress in the field of electronic instruments has been very rapid and this book does not make any reference to Midi and has only a very small section on computer based instruments, (Note: NOT microprocessor, these where not in common use in 1982). Most of the styles of instrument that we know today had not yet been invented.

In spite of the book not including the current generation of electronic instruments it is still worth reading and I did learn something from it. I wouldn't buy it

though, see if you can borrow a copy from your library.

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THE PAWN

HOW TO PLAY THE ADVENTURE GAME

Before you even boot THE PAWN, be sure to read all of the documentation which comes with the game. (Oh, all right, I know you want to see the magnificent graphics, so go ahead -- boot it. But then get right back to those docs. You can't see all the great pictures, anyway, until you progress in the game.)

It is especially important that you read "A Tale of Kerovnia." This will set the stage for the action to follow so you'll have some idea of the story line. Besides, the "Tale" is not only informative; it's really a barrel of laughs. If you like droll English humor, you'll appreciate it. Okay, here we go.

Press <CR> for more
!SCROLL
You wake up with a bump on your noggin, wearing some odd clothes and a strange wristband. What to do. Well, first, LOOK AT THE CLOTHES. Yep, that plant design sure smacks of something potty. LOOK IN THE POCKET. There's a key in there (a metal key, as it turns out). Time to do some exploring of this strange new land. Go east. Whoops! What's this? You enter the grassy wilderness and Kronos, the magician, appears zooming up to you on some sort of stone platform (a Kerovnian hovercraft?). SAY TO KRONOS, "GREETINGS."

Kronos will reply that he needs someone to take a note to King Eric. TAKE THE NOTE. Then, be sure to ASK KRONOS ABOUT THE WRISTBAND. The magician will promise to remove your wristband if you perform a service. You must kill a man on a legless horse and bring his dead body to Kronos' room in the northernmost mountain. Kronos offers you a chest which will help in this task. TAKE THE CHEST, but do not open it.

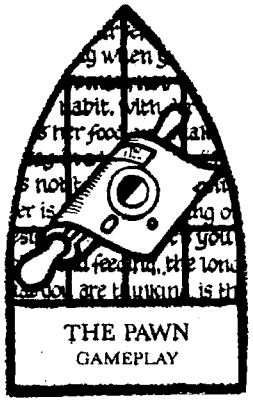
You can LOOK AT THE NOTE and/or THE CHEST if you want, but it's not necessary. Go east twice. You will be in the palace gardens. LOOK UNDER THE MAT. Another key. GET THE KEY. (This one is a wooden key.) Also, LOOK IN THE FOUNTAIN and GET THE CHIT (it's an I.O.U from Honest John for 1 Ferg). Now go southwest. You're at the shed. UNLOCK THE DOOR WITH THE WOODEN KEY. Southwest. Once inside, you will see three things. GET two of them -- the RAKE and the HOE. (The wheelbarrow is a red herring. Forget it.) Then LOOK AT THE WORKBENCH. You spy a trowel. GET THE TROWEL. Nope, you're not done yet. LOOK UNDER THE WORKBENCH. You find a pot. GET THE POT. LOOK AT THE POT. Hmmmm, the pot contains a plant which closely resembles the plant on your shirt. (Lotsa pot references in case you're missing it!) Okay, you're finished in the shed so go northeast, then east to the gatehouse. The guards at the gatehouse won't let you pass until you SHOW THE NOTE TO THE GUARDS. Then, you are allowed in to see King Eric, who is infuriated by Kronos' note. He rewards you for delivering it by having you kicked out of his palace.

So much for good deeds. Oh, well, no great harm done except to your dignity, and you'll suffer plenty more indignities in this game. Go west three times and south. Then, go west twice to the path. Go north five times on the path. You will come to a very large boulder. (Before we go on, remember, any time you wish to know the directions you can move in THE PAWN, simply type EXITS, and you'll be told.)

Hmmm, what to do with this humungous boulder? Well, for the moment, you can forget it. Head west, then northwest to the top of the heather-covered hill. There's a hut here. GO IN THE HUT. My word, there's a Guru here, and he laughs uproariously at your wristband. What could be so funny about that? No matter, he won't stop laughing until you can somehow hide the thing. So TAKE OFF THE SHIRT. COVER THE WRISTBAND WITH THE SHIRT. Ah, that's better. At least the Guru stops laughing long enough to give you a chore to perform. He empties his bowl, gives it to you and instructs you to bring it back full of the essential nourishment of life. (Doesn't want much, does he?) Well, no ducking the assignment; but before you leave the hut, GET THE RICE you are informed is there.

Now it's time to retrace your steps to the foothills where you last left the large boulder. Once you reach the durned thing, you can UNCOVER THE WRISTBAND. Then, TIE THE RAKE AND HOE TOGETHER WITH THE SHIRT. It isn't very plausible, but you now have just the implement with which to move the boulder. Bet you would never think of the next entry: LEVER THE BOULDER WITH THE RAKE AND THE HOE. (Yes sir,it's a beaut, all right!) Well, it works, and the boulder goes bounding down the mountainside out of harm's way. Now you can proceed northwest up the narrow track. (You might want to pause before doing so to PUT ON YOUR SHIRT. It gets chilly up in those mountains.) Of course you have to UNTIE THE SHIRT (from the

rake and hoe) before you can wear it. Oh, dear, just when you thought you were on your way, you no sooner get by the boulder than your path is blocked by a rockfall. No problem. CLIMB OVER THE ROCKS. (See? Sometimes the solutions are right there as plain as the nose on your face, no gimmicks, no tricks.)



along about now the adventurer should appear, riding on a horse. Aha! The horse has no legs. This must be the guy Kronos wants you to knock off. GIVE THE CHEST TO THE ADVENTURER. No sooner said than the adventurer opens the chest and a lethal blast wafts into his kisser and kills him dead. GET THE ADVENTURER and PUT THE ADVENTURER ON THE HORSE. Now it's time for you to GET ON THE HORSE yourself. (This nag has a sense of humor, as you will see.) More important, for whatever reason he turns out to be a magical source of light. And you must have him with you when you enter dark places, or, find another light source. (Yep, you'll have to do that, too. After all, horses, legless or otherwise, can't go everywhere.)

Now go northwest and up to the plateau. From here you can see an ice tower off to the southwest. Time for that later. You will be coming back. (The only reason I stuck this UP move in is just in case you need an extra move or two to meet the adventurer. In other words, he doesn't always appear at the same place I've indicated. But don't fret; he will be along.) Anyway, go back the way you came (i.e., DOWN). There's a cavemouth to the east. Go east twice. (By the way, without the horse, you wouldn't be able to see your hand in front of your face. Good thing you have your new friend along.)

Go east one more time (into the cavern), then down. You will find yourself in a small cave. Go east into the corridor. You'll find a REM statement here. To read it, GET OFF THE HORSE (don't worry, he'll wait. And, don't forget, there will be other times later when you're riding the horse when you can't do things unless you dismount). Okay, READ THE REM STATEMENT. (You can skip it if you prefer. I only stuck it in here to give you the tip about dismounting.)

After the REM statement, get back on the horse and ride east to the Lava River. You will see a vertical shaft which you decide bears investigating. GET OFF THE HORSE and go up. Foiled again! You are told you must drop everything to go up. Don't do it. Something might break. Instead PUT ALL (items in your inventory, which should include the pot, hoe, trowel, rake, bowl, rice and chit) ON THE HORSE. Now you can go up, and up again. You are told that the primary function of the shaft is probably to supply air to the fires of hell, rather than allowing mortals pot-holing practice. Hmmmm. Well, at its apex you are in a chamber by the river. It looks like the wall keeping out the river is very fragile. Nothing to do but to BREAK THE WALL. The wall breaks easily and the water rushes in, sweeping you with it back down the shaft. You'll wind up in the dark, so go east, back to the Lava River, and there you find your horse (and light) calmly waiting for you. Go north.

Now, then, the reason you broke the wall was to let the river in. The result of this action was to cool and solidify the Lava River so you could move north. Otherwise, you would have been incinerated.

On the north bank of the Lava River you see a pale blue pedestal. Also, in the northeast wall is an exit with a notice above it. If you go northeast, you will be in an endless maze. (The notice, by the way, which you have to dismount to read, says: "Warning: This maze is totally irrelevant to the adventure.") Don't tear your hair if you stumble into the maze by mistake. If you read the notice, you shouldn't make such a dumb move; but if you do, simply type EXIT MAZE and you'll be out again. Now wasn't that easy?

What you're really after is that pedestal. So (presuming you've dismounted) type, LIFT THE PEDESTAL. Just as you suspected, there's a niche here. LOOK IN THE NICHE. Oho! Another key, this one a blue key. GET THE BLUE KEY. Now GET ON THE HORSE and retrace your steps back out of the caves. (Go south, west twice, up, west three more times and you'll be outside on the path. Now it's time to go up to that plateau from whence you spied the ice tower. (You're not finished with the caves, by the way, nor with the ice tower; but they can wait until later.)

Once you are on the plateau, dismount and GET THE BOWL (remember, you left it on the horse with all your other stuff). Once you have it, PUT SNOW IN THE BOWL. (Yes sir, that'll make the essential nourishment of life, all right!) Now go down three times until you reach the foothills. Go south, then west and northwest back up to the hill to the Guru's hut. GO IN THE HUT and GIVE THE BOWL TO THE GURU. (Betcha forgot to get off the horse first!) He thanks you and gives you a pretty obvious clue, something about a light in the forest helping you and EXIT the hut and get on your horse. Go south through rolling hills, south through the rank forest, and south again until you come to a forest clearing. Here you find a tree stump. LOOK AT THE STUMP. The stump is gnarled and rotten. It contains a pouch. GET THE POUCH. (Note: If you had found this place before satisfying the Guru, you would not have found the pouch. Just an empty and not terribly useful old stump.) OPEN THE POUCH. LOOK IN THE POUCH. You are told the pouch contains a blue, a green and a red. (Presumably, these are either jewels or stones, we are not told. The main thing they are is your new handy-dandy transportable source of light. Also, as you will see, the red has still another use, as does the pouch.) But we dally. It's time to GET ON THE HORSE.

At this point you may want to retrace your steps and go back to where you saw the ice tower.

(Continued next month.....)

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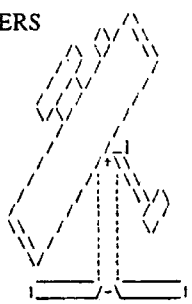

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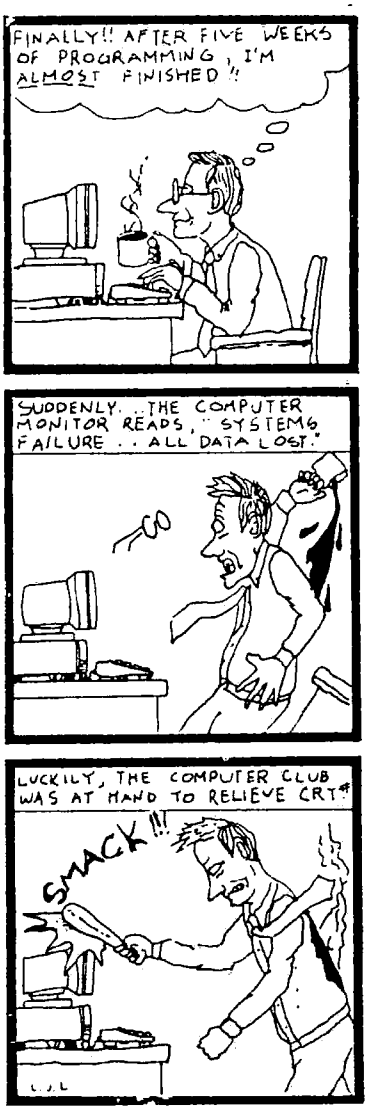
FINALLY!! AFTER FIVE WEEKS OF PROGRAMMING, I'M ALMOST FINISHED!!
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INTRODUCTORY B.A.S.I.C. - PART 5
"THE CLOSING GRAPHICS"

by T.Owen-Brown
(Using an Atari 130XE and Atari Writer Plus)

Last year I developed a very basic opening graphic screen - I hope you have typed it in and played around with it a bit. For those of you who have aquired a book on Atari graphics, you will be of course forging ahead of these articles. I will for the time being however, keep these articles to an introductory level - on the assumption that people are really just beginners and are learning from these articles.

As the title suggests, this article is primarily concerned with the closing graphic screens, however, I will also explain how to load 2 separate programs to merge them.- This could be handy if you type in the next part of these programs without having pre-loaded the previously saved program.

O.k. here we go - 'the closing graphic screen'.

LETS LOOK AT SEVERAL OPTIONS.
OPTION 1.
You could just insert the opening graphics at the end so it just says the person's name and again shows 6 balls.

```
2022 DIM NAM$(12)
2024 NAM$="FRED"
2025 REM ** IF YOU RUN THIS SECTION OF THE PROGRAM ON ITS OWN,
YOU WILL NEED TO 'DIM' A 'NAM$' AND LET A 'NAM$' = A NAME OF A
PERSON ( AS ABOVE ).
2028 REM ** IF YOU JUST TYPE THIS MINI PROGRAM ONTO THE MASTER
PROGRAM YOU WILL NEED TO DELETE LINES 2022 TO 2028

2035 GR.2
2040 POS.3,2:?#6;NAM$;"'S"
2060 POS 3,4:?#6;"TATTslotTO"
2080 POS.3,7:?#6;"O O O O O O"
```

&/OR
OPTION 2.
We could just add to it a little text screen to say "Thank you "Fred" for using our tattslotto system - we hope your numbers are successful "

```
2100 PRINT "THANK YOU ";NAM$;" FOR USING OUR SYSTEM"
2105 REM THIS WILL PRINT 'FRED' IF YOU HAVE LINES 2022 & 2024 IN, OR
THE NAME YOU ENTER IF YOU LEAVE THEM OUT.
2110 FOR DE = 1 TO 1200:NEXT DE
2115 REM A DELAY STATEMENT
2120 ?"WE HOPE YOUR NUMBERS ARE LUCKY"
2125 FOR DE = 1 TO 1200:NEXT DE
```

&/OR
OPTION 3.
The above is fine - and both can be put in. But it would be a lot more fun to use our various graphics modes to draw some thing as well.

```
2140 GR.5 +16
2145 REM IN GRAPHIC MODES OTHER THAN '1' & '2' YOU MUST
INCORPORATE A 'COLOR' STATEMENT. THE '16' OF COURSE REMOVES
THE TEXT BAR TO CREATE A FULL GRAPHICS SCREEN.
2150 COLOR 1
```

```
2160 PLOT 32,8:DRAWTO 24,16:DRAWTO 30,16
2170 COLOR 2
2175 REM DIFFERENT COLOR NUMBERS GIVE DIFFERENT COLOURS
2180 DRAWTO 24,24:DRAWTO 30,24
2190 COLOR 3
2200 DRAWTO 30,30:DRAWTO 24,30
2220 DRAWTO 30,36:DRAWTO 36,36
2240 DRAWTO 40,30:DRAWTO 34,30
2260 COLOR 1:DRAWTO 34,24:DRAWTO 40,24
2280 DRAWTO 34,16:DRAWTO 38,16
2300 COLOR 3:DRAWTO 32,8
2360 FOR DE = 1 TO 2200:NEXT DE
```

Remember these are only suggestions - I expect you to try things for yourself.

&/OR

OPTION 4.

And perhaps we could make something move around.

```
2400 LET X=2:LET C=1:LET Y=2
2410 REM WE HAVE ASSIGNED THE 'X' & 'Y' COORDINATES CERTAIN
VALUES - AND THE COLOR.
2420 X=X+1:C=C+1:Y=Y\1
2425 REM WE INCREMENT THE VALUES
2430 IF X=78 THEN LET X=2
2434 IF C= 3 THEN LET C=1
2436 IF Y= 46 THEN LET Y=2
2438 REM THE ABOVE RETURNS THE COORDINATES TO THEIR ORIGINS
WHEN THEY GET TOO HIGH.
2440 COLOR C:PLOT X,Y
2460 GOTO 2460
```

I suggest you try each one, monkey around with them and eventually type it in as it appears into your program - ie.perhaps try them (one by one) using the appropriate line numbers, without the rest of the previous program being loaded and see which you like and perhaps see what else you might be able do on your own.

Then load your main previous program and retype the small closing graphics program(s) into it.

I have written the new sections so that all 4 of them can be added into the 'master program' which should then look like the program below.

* Remember to load the previous main program (I will refer to it as the master program from now) before you type in the your final choice.

** Now let us have a look at what I did to merge program-part-1 into program-part-2 in order to put a combined listing together for the last month's article - I have to do this each time I write a new part for this program if I write it independently of the master program. I could load the master program and try to add it in as I go, but it means you are running through the entire program over and over to test perhaps only 15 lines of new program.

*This is what YOU will have to do if you forget to pre-load the master program before you type in new sections.

**REMEMBER it is entirely dependent on your line numbers being compatible !!!!

so make sure you stick to the line numbers I prescribe !!!

STEP 1.
I typed in part 1. and saved it using the normal 'SAVE "D:INTROBAS.PR1'.

STEP 2.
I then wrote part 2. and saved it independently with 'SAVE "D:INTROBAS.PR2' (I did this in order to have a separate record of the indepndant parts).
NB. I WAS USING LINE NUMBERS FROM THE ORIGINALLY LAID OUT MASTER PROGRAM AND MAKING SURE IT FITTED IN - IN THE RIGHT PLACE AND NOT INFRINGING ANY ALREADY USED LINE NUMBERS.

STEP 3.
I had to reload each program - eg. 'LOAD "D:INTROBAS.PR1' and resave it using 'LIST "D:INTROBAS.PR1' - this saves it in a different format.

STEP 4.
Repeat the process with part 2 - ie. reload, resave using 'LIST "D:INTROBAS.PR2'.

STEP 5.
rovided your line numbers don't clash you then load part 1 using 'ENTER "D:INTROBAS.PR1' followed by loading part 2 by using 'ENTER "D:INTROBAS.PR2' AND VOILA ! MAGIC ! THEY ARE MERGED TOGETHER.!

Main Program follows:

```
10 ? "↰"
20 GRAPHICS 2
30 REM WE CAN USE COLOUR STATEMENTS AS IN APPLE - BUT WE DON'T HAVE TO.
40 DIM NAM$(15)
60 ? "PLEASE ENTER YOUR NAME AND PRESS RETURN KEY"
80 INPUT NAM$
100 POSITION 3,2:? #6;NAM$;"'S"
120 POSITION 3,4:? #6;"TATTslotTO"
140 POSITION 3,7:? #6;"O O O O O O"
160 PRINT NAM$;"THIS IS YOUR TATTSLOTTO PROGRAM - BUT FIRST THE CHECK !"
180 FOR DE=1 TO 2000:NEXT DE
200 PRINT "WHEN YOU PAYED YOU WERE GIVEN A PIN No.etc."
 20 FOR DE=1 TO 2000:NEXT DE
240 PRINT "YOU WILL BE ASKED FOR THESE CODES SOON - BE PATIENT "
260 FOR DE=1 TO 2000:NEXT DE
450 REM CLOSE OF GRAPHICS
470 GRAPHICS 0
475 ? "A.O.K."
480 REM START OF SECUITY PROG
485 REM SETTING LIMIT ON TRIES
490 LET X=0
495 PRINT "↰"
500 PRINT "PLEASE ENTER SECURITY PIN NO."
520 INPUT PN
528 X=X+1
534 IF X=3 THEN GOTO 3000
540 IF PN=3130 THEN GOTO 550
545 GOTO 500
550 DIM PW$(10)
555 X=0
560 ? "YOU ARE THROUGH THE 'PIN' - NOW ENTER YOUR PASSWORD"
580 INPUT PW$
588 LET X=X+1
594 IF X=3 THEN GOTO 3000
```

```
600 IF PW$="ACDC" THEN GOTO 795
620 GOTO 560
700 REM END OF SECURITY PROG
795 GOTO 1000
1000 REM START OF TATTSLOTTO PROG
1980 REM END OF TATTSLOTTO PROG
2020 REM START OF CLOSING GRAPHICS
2021 REM OPTION 1.
2022 DIM NAM$(12)
2024 NAM$="FRED"
2028 REM ** IF YOU RUN THIS SECTION OF THE TOTAL PROGRAM ON ITS OWN
YOU WILL NEED TO DIM NAM$ & LET NAM$ = A NAME.
2030 REM eg. 2022 DIM NAM$(12) & 2024 LET NAM$="FRED"
2032 REM DON'T FORGET TO REMOVE THEM BEFORE YOU BUILD ON TO THE
MASTER PROGRAM
2035 GRAPHICS 2
2040 POSITION 3,2:? #6;NAM$;"'S"
2060 POSITION 3,4:? #6;"TAttslOTTO"
2080 POSITION 3,7:? #6;"O O O O O O"
2090 REM OPTION 2
2100 ? "THANK YOU ";NAM$;" FOR USING OUR SYSTEM"
2110 FOR DE=1 TO 1200:NEXT DE
2120 ? "WE HOPE YOUR NUMBERS ARE LUCKY"
2125 FOR DE=1 TO 1200:NEXT DE
2130 REM OPTION 3
2140 GRAPHICS 4+16
2145 REM IN GRAPHICS MODES OTHER THAN '1' AND '2' YOU MUST
INCORPORATE A
"COLOR" STATEMENT
2150 COLOR 1
2160 PLOT 32,8:DRAWTO 24,16:DRAWTO 30,16
2170 COLOR 2
2175 REM DIFFERENT COLOR STATEMENTS GIVE DIFFERENT COLORS
2180 DRAWTO 24,24:DRAWTO 30,24
2190 COLOR 3
2200 DRAWTO 30,30:DRAWTO 24,30
2220 DRAWTO 30,36:DRAWTO 36,36
2240 DRAWTO 40,30:DRAWTO 34,30
2260 DRAWTO 34,24:DRAWTO 40,24
2280 DRAWTO 34,16:DRAWTO 38,16
2300 DRAWTO 32,8
2360 FOR DE=1 TO 2200:NEXT DE
2380 REM OPTION 4
2400 LET X=2:LET C=1:LET Y=2
2420 X=X+1:C=C+1:Y=Y+1
2430 IF X=78 THEN LET X=2
2434 IF C=3 THEN LET C=1
2436 IF Y=46 THEN LET Y=2
2440 COLOR C:PLOT X,Y
2460 GOTO 2420
2480 REM LINE 2400 ASSIGNS VARIABLES TO X & Y COORDINATES - WHICH ARE
INCREMENTED IN LINE 2420
2484 REM 2430-2436 RETURNS VARIABLES TO ORIGINAL VALUES WHEN THEY
GET TOO HIGH
2500 REM END OF CLOSING GRAPHICS
2940 REM POSSIBLE REUSABLE ROUTINES
2980 GOTO 3020
3000 ? "YOU ARE A CROOK -POLICE":END
3020 PRINT "PROGRAM IS OK"
3040 REM POSSIBLE END OF PROGRAM
5000 END
```

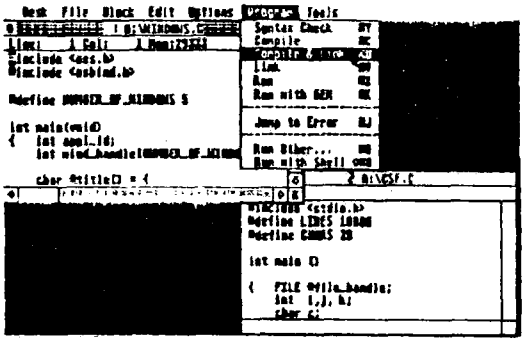
Review HiSoft Lattice C V5

by Arnd Hurlbrink for the Paragon Report. Feb 1991

Background A number of years back, in the 1970s, Dennis Ritchie invented and implemented the C language on a PDP-11, using the Unix operating system. The development of C has its roots in the older, but still widely used BCPL, which in turn was influenced by B. Because it is considered a middle level language and offers access to a vast amount of functions, C has been used to write high performance software like word-processors and even operating systems. Incidentally, TOS was written in C. More recently, the C language has gained its popularity for being a very powerful, easy-to-learn, general purpose programming language. The Atari ST range of computers is blessed with several good compilers, among them Metacombo C, and its successor, Laser C, Turbo C, HiSoft C Interpreter and now Lattice C Version 5.

Overview of Lattice C Version 5 Inside the 220mm x 205mm x 85mm grey box, along with the usual licence agreement and registration card, you get a neat little wallet containing 7 double sided disks (yes, you read right), three large handbooks of about 300 pages each and an installation guide.

The Environment Having made a backup of a seven disks, the system already worked reasonably well by just booting up on disk one, which creates a ram disk and automatically copies all library and include files onto it, taking up about a minute. Clicking on the main program loads the integrated environment with all the usual functions. Up to four text files may be viewed at once and scrolling of text is very smooth. Browsing through the menu, there are a multitude of options. A powerful feature is that up to ten programs may be installed as tools, which may then be run without leaving the comforts of the editor. But, before any serious work could be done, the program needed to be installed properly and this was easily done by running the installation program, which in turn created two more disks. The environment is rather memory-hungry. The almost essential ram disk already requires 300K, thus owners of a 512K machine won't be able to run the integrated environment, but HiSoft hasn't left those users in the dark and also have included a cut down version of the editor and a powerful command line interface. On a 1M system compiling is a breeze, as the environment loads without any problems. With the default settings compiling takes about 30 seconds. The settings can be changed so the ram disk is used, reducing the time to about 10 seconds. The ram disk has about 50K free, just large enough for one or two programs. If the system should crash due to an error, all is not lost, as the ram disk is reset-proof. I expect similar results using a hard disk. If you have a second or a hard disk, running the tools is no problem at all, once they are installed properly. If you have only one drive like me, you can still install them on drive B: and the system simply asks for your work and tools disk whenever it is needed. If your machine has more that 1M, then you can reconfigure the ram disk and put the tools on it as well, and the best part is, that if they are located on the boot disk they will be loaded automatically.



The C compiler The C compiler which is usually run from the integrated environment, can be used just as well by itself using the TOS command line, the supplied command line interface, or the cut down version of the editor. The compiler has over 80 options, from the amount of debugging information to include, whether to optimise for speed or space or to invoke the linker. There is even a built in make utility. You also have the option for what processor of the 68000 range to generate code for and if it should make use of a maths coprocessor chip. This will be be of particular interest to Atari TT users, when it becomes available. (In fact HiSoft have tested the whole package and guarantees that it will work on a TT.) Since there are so many options, lowercase and uppercase characters have to be used in the command line. This poses a small problem for TOS 1.0 users, as it automatically converts the command line from the desktop to uppercase, but this had been foreseen and has been provided for. As you can see, the people at HiSoft have taken great care to iron out any potential problems the user might have with the software.

The Libraries The libraries are the most extensive I have ever seen in any implementation of C or for any other programming language. Since it is designed to conform with the ANSI standard, the standard library files are included to make any new programs written compatible to other ANSI C compiler systems. Since there is a lot of older C code using the classic C and Unix functions, which have not been included in the new standard, a majority of these have been implemented as well. There is the Lattice function library which offers routines to make use of ST specific system resources, like a maths coprocessor. Finally there are the ST specific functions in the operating system which may also be accessed. There are a couple of calls, particularly Unix functions which could not be implemented, but a suitable alternative has been devised to keep in the spirit of the original function. An example of this is Unix C's fork function, which makes a duplicate of the current process to run as a child process. The child is then usually made to copy a new program over itself and execute it, via one of the exec calls. In the Lattice C counterpart of the unix calls, there are several fork calls that simply combine the two. To save space and consequently

time, the header files have been compressed into a non-readable format, which the compiler can still use. The uncompressed files are located on the tools disk and a compression utility has also been provided.

The Optimiser An interesting tool provided is the optimiser, which loads an intermediate file, produced by the compiler and changes it to make the final code run more efficiently. Unfortunately, it uses a lot of memory and won't run at all if you have less than 1M. Even with 1M, you can only use it, while in the environment with very small programs. Fortunately, the optimiser can be run via the command line interface with no problems. Features of the optimiser include elimination of code that never executes and sections of code, which need to be executed only once, are moved outside loops.

The Command Line Interface The command line interface is quite powerful as batch files and environment variables can be set up. If you only have 512K, then your best course of action would be to invoke the compiler using batch file and redirecting any error messages to a file and then run the editor with the original source and the redirected file. Of course the command line interface can be used by anyone prefering an more Unix-like environment.

The Resource Editor Included in the package is HiSoft's latest version of Wercs, one of the most powerful resource editors, which by itself retails at A$64.95. It has all the usual features and the more advanced ones, like auto naming of objects and moving images into menus. An original feature is that you can test any resource you have created with the touch of a button, which also displays the number and name of the object clicked to exit.

The Debugger Another powerful tool is the debugger. Users of HiSoft's DevpacST 2 Assembler will be right at home here. It is a full 68000 object level debugger, which you can use to trace the instructions of any program. It sets up its own screen and screen driver so as not to interfere with the program being tested. The disadvantage of the debugger is, that it takes a good working knowledge of the 68000 instruction set to fully comprehend of what is going on. As a help, the debugger can also load the source code which can be viewed while debugging. According to the manual, a more useful C source level debugger is under development and may be available in later versions of the program.

The Assembler Also included is a stand-alone assembler. Although, it is not as powerful as DevpacST 2, it can assemble 68010/20/30 instructions. Fortunately, the directives are largely compatible between the two assemblers, making porting of working routines quite easy. Users of Devpac should note that the C compiler produces GST object files as an option, but defaults to the Lattice C linkable object file type for efficiency. The assembler can only create Lattice C linkable files. The Disassembler The disassembler produces an assembly listing of an object file. This one has the option of interspersing lines of the original C source code into the listing where it is applicable. This makes the object code much more understandable and a printout of this is an invaluable guide when using the debugger.

Other tools There is also a Linker for GST object files to make this version of C compatible with DevpacST and a host of other languages. Also there is a object module librarian, which combines several object files into one. Other programs include a symbol strip utility, resource file converter, and a program that converts Degas and Neochrome pictures into resource files and compactor for header files.

The Documentation As mentioned above, there are three volumes of instructions and an installation guide. The first book are the instructions on how to use the environment, compiler and all the tools that are on the disks. The book is divided into easy to find sections. There are lots of summaries, like a list of all compiler options, the VT52 screen codes and the Atari ST ASCII table. Best of all, there is a list of all the major references on C and 68000 programming, algorithms and ST specific features. The other two books describe the vast array of function calls available. The first contains the Ansi, Lattice and Unix functions, the other the ST specific GEMDOS, BIOS, XBIOS, Line-A, VDI and AES calls. A page or more is devoted to a function, which describes its exact declaration, what to files include, related functions and any special problems associated with the call. It is also good to see a number of examples to try out. The installation guide gives some hints and tips how you should best set up the system and includes a list of contents of all the disks so any file can be found relatively quickly. The documentation is definitely first rate and so complete and up to date that additional references are hardly required.

Summary The Lattice C programming language is an excellent choice for programming projects of all sizes. With an astounding number of options and utilities, it comes together quite nicely. The whole package is very well organized and it is evident that a lot of work has gone into it. Of course, the higher the specification of the machine, the better it becomes. In general, Lattice C is a program that will grow with you and on you.

Reviewed by Arnd Hurlbrink
for the Paragon Report
February 1991

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ATARI SCORES at WINTER NAMM

by Dr. Paul Keith, Z*NET USA

The Anaheim Convention Center, South of Los Angeles, was once again host for the mammoth Winter National Association of Music Merchandisers Show (NAMM), January 11-14, 1991. Over 600 exhibitors from all over the globe saw Atari again appear as the consistant leader in MIDI support.

Atari's booth was on the main floor of the show, while last year's show found them high above the activity of the show in a set of converted offices. This year they used a scaled down version of their Comdex booth, showcasing six developers in their booth, with a large conference room, and a stage for the demos, all in a 20' x 40' space.

This was the third year that Atari has featured Jimmy Hotz and his MIDI controller, the Hotz Box. This time, Mick Fleetwood was not there, but instead, Hotz was joined by Jon Anderson (formerly lead singer of YES now with the band Anderson Bruford, Wakeman, & Howe), Paul Haslinger (one of the leaders of the Tangerine Dream, a new age/fusion band), and Scott Gershin, better known for his capabilities as a sound engineer than as a musician.

While Hotz was conducting his demos, most of the staff from Atari and the other developers in the booth quite literally had to get out of the crowds way. I caught up with Bob Brodie, standing on the edge of IBM's booth where there was plenty of room. Neither Apple nor Commodore had booths, and IBM first venture into NAMM was more like a business presentation than for MIDI. I asked how he felt about IBM and MIDI. "Based on IBM's presentation, it's pretty obvious that they really don't have a good handle on what's happening in the MIDI market," Bob answered. "We've brought on board a real pro in James Grunke. He's a musician first, so he understands our MIDI dealers that look at our computers as just another way of making music. And, of course based on his experience with the Beach Boys, he certainly understands the performers end of the business."

Joining forces with James in the Atari booth was none other than Greg Pratt, the new President of the Atari US division, in a demonstration of support (both for the MIDI market, and for James, his new Director of Specialty Markets). Meetings were scheduled with significant developers, giving them a chance of to air grievances, and of course, to make proposals for the future. Reports of results were very encouraging.

Showing off their wares in the Atari booth for the first time was Digital I/O, US Reps for the new Plasmec A2D2 direct to disk recording system. This system comes in direct competition to Digidesign's Sound Tools, only for far less money. Surprisingly, Digidesign announced at the start of the show that they were going to drop all North American support for Atari products, prompting some observers to speculate that the expensive Sound Tools product was selling poorly in North America. However, by the end of the show, Digidesign had left the door open for other discussions, impressed with Atari's presence at the show, and even more impressed with the meetings that they had with Greg Pratt and James Grunke.

During the show, C-Lab, the top-selling MIDI sequencing software developer, and Atari worked out and announced a joint marketing and dealer support program that will provide comprehensive sales and support assistance to nearly 50 key MIDI dealers across the country.

Atari showcased a number of MIDI solutions in their booth. Included was Hybrid Arts, showing off their Adapt II system, DrT's, demonstrating many of their products, Take Note, the premier ear training program, C-Lab, demonstrating Notator. Atari told their dealers that at this point, they are prepared to make them great deals on the 1040STE, MegaFile 30's, and both of the ST monitors. However, NAMM proved to be a great test for the new Mega STE, as a number of developers were using them for the first time. The TT was present, but mostly just for show.

Setup and assistance for Atari's booth was once again provided by local Atari club members. LA area user groups supporting Atari at the NAMM show included HACKS, ACES, and ACAOC.

Overall, this NAMM show had a decidedly different feel than previous ones; the combination of recessionary times plus the war in the gulf had attendees watching portable TVs for the latest news on the bombings. Much of the Hollywood style glitz and flash that has typified NAMM shows was missing, and so was much of the crowd. While turnout was disappointing when compared with previous shows, Atari's presence at NAMM signals a continuing support of the music industry that is unparalleled in the computer industry. That signal was not lost on the industry officials and dealers, who represent a significant part of Atari's sales outlets.

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Z*Net Newswire...

⇨ German newspaper Frankfurter Allgemeine Zeitung (FAZ) reported in December that Atari Germany's General Manager Alwin Stumpf will move to Canada shortly to steer the matters of Atari in North America from there. The implication is that Stumpf will pick up where Elie Kenan of France left off when he left the US in October of 1990. The German division of Atari has been the star of them all, complete with wide acceptance, significant market penetration, and regular advertising. German Atari show attendance is measured in tens of thousands rather than in hundreds as is the contemporary American experience. Late reports indicate that if Stumpf comes to the West, it will be in a one-year advisory role rather than as a new "super-manager". No confirmation from Atari is available for this story.

⇨ Atari announced in a December press conference in Munich that a limited number of Mega STEs are on their way to Germany, to arrive during January. At first only the Mega STE 4 with a 48 MB hard drive configuration of the Mega STE will be available in Germany, retailing with SM124 monitor for DM 3.000 (about $2,000 US).

⇨ In a move that signals a major reworking of the marketing plan for Atari, the company fired all of their full-time sales representatives in January, and let many their contracted rep firms go as well. This action followed the prior week's departure of Sales VP Bill Crouch after a review of sales figures. Atari had only six full time staff representatives, and at least some of them are being considered for other positions within the company. The reasoning for the move is said to be that the reps are not generating sales beyond that which can be had more efficiently by sales through national distributors. Pacific Software is offering one-day shipping of Atari 1040STe's, monitors, hard drives, and software, and may very well carry the Mega STe when it enters the market in February. Atari plans to beef up its in-house sales support in order to "hand-hold" with personal service, albeit on the phone, the high-end dealers who will also be the initial primary outlets for the TT.

⇨ US Atari dealers WILL be able to get the TT even before a Type B FCC rating is available. They have to give ATARI a letter stating that they have business and industrial clients. Also, it is expected that the STacy, also awaiting a Type B rating, will be sold through these dealers in the same manner.

⇨ Geoff Earle, General Manager of Atari Canada announced in January that they would offer a full one year warranty on all computer products. Previously the ST series was covered for 90 days only. There are no indications yet of similar action from the other branches of Atari.

⇨ Atari is offering a contest for demos that feature DMA sound, digitized speech, and advanced color graphics that will make people want to buy the STe/MegaSTe/TT series of computers. First prize is a 32MHz TT030/8-50, 1st runner-up gets a 16MHz MegaSTe/4-50, and 2nd runner-up, a Lynx with two extra games. Files can be either uploaded to GEnie (ATARIDEV), CompuServe (70007, 1072), or mailed directly to Atari Corporation, 1196 Borregas Avenue Sunnyvale, CA 94086, Attention: Bill Rehbock. Submissions must be posted by March 26, 1991.

⇨ Atari's Manager of User Group Services, Bob Brodie, has begun a continuing column for STart Magazine, the largest US Atari specific magazine. His articles will be general interest items, with accent on user groups and how they help owners get more from their Ataris.

⇨ There were no press releases about the new video game to come (shortly?) from Atari at the November Consumer Electronics Show (CES) in Las Vegas. Nevertheless, the PANTHER, said to be a 68000 CPU game box unrelated to the ST computer line, was shown privately by Atari's Leonard Tramiel to select developers during the huge Las Vegas entertainment product show. Details? Sorry, all we could get from a source within Atari about the Panther was "Nice kitty, kitty...". Rumor has it that it will offer some LYNX compatibility.

⇨ As the war in the Mid-East continues, Atari has become a part of the morale support system by sending over $50,000 worth of Lynx game systems. To give military personnel participating in Operation Desert Shield, now Desert Storm, a healthy way to release pent-up energy and to alleviate some of their boredom during the slow times, Atari made arrangements with the Defense Logistics Agency (DLA) and the USO to supply Lynx portable color video game system kiosks and video game cartridges to military recreation centers in Saudi Arabia. Meade Ames-Klein, (now former) president of Atari's consumer products game division, said, "When it became obvious that our troops were going to be in the Middle East for some time, we thought the Lynx systems and game cartridges would help improve morale and would provide the men and women stationed there with a little entertainment. Perhaps, for at least a short period of time, the Lynx will let them escape from the reality of their surroundings." Atari is well known in Saudi Arabia, and their ST and even 8-bit computer lines are perhaps the most popular formats being sold there. Says Scott Lapham, Z*Net writer who was a civilian worker on assignment there in 1990, "Any shop that sold any type of electronics, sold Atari products. There were "Atari only" stores. The Fuji symbol was everywhere."

⇨ Atari has now relocated their entertainment division into the Chicago Area (330 North Eisenhower Lane, in Lombard, Illinois, (708) 629-6500, FAX (708) 629-6699), and has appointed Lawrence Siegel as President of the division. Siegel was previously Vice President of software development for Atari. Atari Entertainment expects to significantly increase its promotional activities and dealer support program during the first half of 1991.

s At CES, Atari announced a new, smaller and cheaper LYNX, the LYNX II, which will sell for $99.95 and offer all the features and the same size screen as the original unit. New LYNX accessories include a traveling case, a carrying pouch, a sun visor/ screen guard, and a cigarette lighter adapter.

⇨ Among the five latest additions to the presently available library of single-and multiple-player games for the Atari Lynx are Rampage (from Bally, $34.95), Road Blasters (Atari Games, $39.95), Zarlor Mercenary (Epyx, $34.95), Rygar, the

Continued...

...Z*Net Newswire...

1989 coin-op Game of the Year (Temco, $39.95), and Ms. Pac-Man, the coin-op smash hit (Namco, Ltd., $34.95). The other Lynx games at $39.95 include California Games, Paperboy, Gauntlet, and KLAX. At $34.95, Xenophobe, Todd's Adventures in Slime World, RoboSquash, Blue Lightning, Chip's Challenge, Electrocop, and Gates of Zendocon.

➪ With 16 new releases planned for the coming months, more than 30 games will be available for the Lynx. The new titles, which have a suggested retail price of from $29.95 to $39.95, will be on dealer shelves during the first and second quarters of 1991 and many will use the multi-player capability of the machine. They include: World Class Soccer, Ninja Garden (1990 Arcade Game of the Year from Techmo), Blockout, Xybots, Shanghai, Warbirds, NFL Football, Vindicators, Grid Runner, Turbo Sub, Checkered Flag, A.P.B., Scrapyard Dog, and Tournament Cyberball 2072.

➪ As mentioned in earlier issues of Z*NET, the Migraph Hand Scanner, Touch-Up, and Easy Draw are parts of one of the new STe "bundles". What we didn't mention that TOUCH-UP is now shipping Version 1.6, and features new abilities to save a true grey-scale image in TIFF format. However, the new features require the extended palette of the STe or TT for full use. Older ST units will not have access to all the new features of the upgraded TOUCH-UP software.

➪ Just released is a stereo Analog-to-digital, DSP, and D-to-A system for use with the Atari ST computers. This device will allow hard drive files to be recorded and played back as sequencer tracks with cut and paste, etc. Operating as a desk accessory, the software works while the ST manages a sequencer or other duties. Full non-destructive cue list software is included with the $1,000 package. MAC versions will be available later. Built by D2D Systems of Cambridge, England, contact Plasmec Systems Ltd., Weydon Lane, Farnham, Surrey, U.K., or call 011-44-252-721236.

➪ ST JOURNAL has temporarily stopped production of their bi-monthly Atari magazine. According to Editor Gantry Gappmeyer, the February/March issue is being held as a re-evaluation of the format and marketplace is being done. Announcements will be made in March about what will happen next, but at this time, a smaller, all-Atari product monthly magazine may replace the ST specific magazine in April. Subscribers should not fret; "at least" full credit for monies received will be offered.

➪ Phil Comeau Software announced Version 3 of the GramSlam Grammar and Style Checker for the Atari ST. It checks documents for over 1200 common grammar and writing-style problems, and offers readability statistics to help the user tailor writing to a particular audience. Version 3 of GramSlam now checks for: doubled words; British vs. American spelling; capitalization problems; unclosed parentheses and quotation marks; sentences ending with prepositions; incorrect form and use of "i.e." and "e.g."; punctuation placed incorrectly inside or outside quotation marks; inappropriate use of contractions. $39.95 (+ $3.00 S/H), or upgrades for $10.00 (+ $3.00 S/H) from Phil Comeau Software, 43 Rueter St. Nepean, Ontario Canada K2J 3Z9, (613) 825-6271.

➪ Atari and third-party developers have unveiled 14 new software titles for the Portfolio. Power Basic, by PC-SIG is a full-fledged powerful basic compiler. Portfolio Stock Tracker, from Lifestyle Software, keeps track of users stocks, bonds, annuities, options, cash, etc. Atari Turbo Translator, from Organized Solutions, can translate approximately 1,000 phrases and 2,000 words into six languages (English, Swedish, German, Italian, Spanish and French). Personal Finance, from Bytesize Software, is a tracking program that allows input and sorting by category. Scientific Calculator contains approximate scientific transcendental functions. Portfolio Bridge Baron, from Lifestyle Software, is for people who want to learn how to play Bridge or improve their game strategy. Portfolio Wine Companion allows users to catalog their wines, choose just the right wine for the occasion and track their wine cellar value and composition. Portfolio Astrologer, also from Lifestyle Software, provides a natal chart, influences, a planetary map, daily data and even the interpretation of the data. Chess has all the strategy and challenge the game is known for. Hyperlist performs outline functions with main topic headings and subheadings. The Portfolio Diet/Cholesterol Counter, from Lifestyle Software, lets you monitor your caloric as well as fat consumption. U.S. Traveler's Guide, from Organized Solutions, is a complete guide to most major U.S. cites (including Canada). European Traveler's Guide is a guide to most major European cities. The Spell Checker/ Dictionary/Thesaurus can be run with the Portfolio's ROM-based editor or as a stand alone program that can be used for a text-based file that was previously saved.

➪ Paragon Technologies announced two aviation software packages for the Atari Portfolio. FX-3 FLIGHT PAK turns the pocket computer into a DUATS terminal and flight calculator to obtain a weather briefing, file a flight plan or access the many other flight services. The FX-4 FLIGHT PLANNER features a full U.S. navigational database and will automatically generate detailed leg by leg trip plans in seconds. You may specify the route yourself or let the FX-4 choose a set of navaids along an optimal great circle route, locate the twenty closest airports or navaids, and more. Paragon Technologies, 800-255-9411.

➪ Artisan Software has released a software system to transfer data between the Atari ST-type computers and the Atari Portfolio computer. TransporT offers easy ASCII file transfers back and forth to the Portfolio as well as extended menu systems which support Xmodem, non-ASCII character stripping, on-line help and file viewing and more. A serial interface and null-modem serial cable is required. TransporT, $24.95 plus $1.50 shipping from ARTISAN SOFTWARE, P.O. Box 849, Manteca, CA 95336. Also available from Artisan is the new paperback version of the REVOLUTION HANDBOOK by Don Thomas, offering computer selection information and suggestions of how to both get the most from your Atari and how to help promote general awareness and acceptance of the Atari line. The book is $14.95 plus $1.50 shipping.

➪ The Federal Communication Commission levied fines totalling

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...Z*Net Newswire

$200,000 against computer equipment vendors who were found violating FCC rules while attending last November's Comdex trade show in Las Vegas. Violations cited were vendors who didn't display FCC ID numbers and others who allegedly rushed new uncertified products to market while competitors were waiting for FCC certifications of their products. The FCC is also considering new regulations on individual components of computer systems, eliminating the loophole that allows some marketers to sell motherboards or other parts that do not currently need to meet radio interference tests.

⇨ Commodore again announced the launch of their CDTV player, the industry's first compact disc-based consumer Interactive Multimedia player at the winter CES show. The new player is expected to be available in early 1991. Applications currently planned include products from Disney Software, Grollier, Lucasfilm, Guinness, Psygnosis, Cinemaware, Accolade and Music Sales. The retail price of the CDTV player will be $999 and CDTV titles should to range between $30-100. Commodore also announced that it intends to reduce the company's work force in the United States by about ten percent, or 250 to 300 people of its 3,000 employees worldwide.

⇨ Logical Design Works announced the appointment of Sig Hartmann as executive vice president. Most recently an executive vice president with Televideo, Hartmann also served in executive vice president positions with both Commodore and Atari Corp. Logical Design Works, Inc. of Los Gatos, CA, specializes in exporting computers and electronics into Europe.

⇨ American Video filed a $105 million damage lawsuit against Nintendo, charging the Japanese companies with violations of antitrust laws. The suit states that Nintendo dominates the home video entertainment business with an 80 percent market share, and that it is using its monopoly power to cause the bankruptcy of the San Jose firm. In the complaint filed January 8, 1991, American Video stated that Nintendo ships 60 million Nintendo cartridges per year from Japan to the United States with a retail value of about $3 billion.

⇨ Nintendo will increase monthly output of its Super Famicom game computers to 500,000 units starting in April and to 800,000 units monthly beginning in August. There are only nine different games available for the new machine, but Nintendo says they will expand to about 30 to 40 types by the end of the summer.

⇨ Lotus Development Corp. is planning on releasing a CD-ROM called "HOUSEHOLD MARKETPLACE". This CD-ROM claims to contain data of about 120 million people in the US. It lists income profiles, spending habits and marital status among other things. This is believed to be an infringement of an individual's privacy and rights. Lotus says that this CD-ROM will only be sold to "legitimate businesses". Now, if you don't want mail-order and other telemarketing outfits to bug you, you'll have to write in to Lotus to explicitly exclude you from their list. You can write to: Lotus Development Corp., Attn: Market Name Referral Service, 55 Cambridge Parkway, Cambridge, MA 02142.

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ST ERROR CODES
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Error Description	Return Code	Alert Box#
OK (no error)	0	
Fundamental error	-1	
Drive not ready	-2	
Unknown command	-3	
CRC error	-4	
Bad request	-5	
Seek error	-6	
Unknown media	-7	
Sector not found	-8	
No paper	-9	
Write fault	-10	
Read fault	-11	
General error	-12	
Write protect	-13	
Media change	-14	
Unknown device	-15	
Bad sectors on format	-16	
Insert other disk	-17	
Invalid function number	-32	1
File not found	-33	2
Path not found	-34	3
No handles left	-35	4
Access denied	-36	5
Invalid handle	-37	6
Insufficient memory	-39	8
Invalid mem. block address	-40	9
Invalid drive specified	-46	15
ENSAME, not same drive	-48	
No more files	-49	18
Range error	-64	33
Internal error	-65	34
Invalid program load format	-66	35
Wrong use of MSHRINK	-67	

Error Description	Number of Bombs
Reset: Initial PC2	1
Bus Error	2
Address Error	3
Illegal Instruction	4
Zero Divide	5
CHK Instruction	6
TRAPV Instruction	7
Privilege Violation	8
Trace	9
Line 1010 Emulator	10
Line 1111 Emulator	11
[unassigned, reserved]	12
[unassigned, reserved]	13
Format Error	14
Uninitialized Interrupt Vector	15
[unassigned, reserved]	16-23
Spurious Interrupt	24
Level 1 Interrupt Autovector	25
Level 2 Interrupt Autovector	26
Level 3 Interrupt Autovector	27
Level 4 Interrupt Autovector	28
Level 5 Interrupt Autovector	29
Level 6 Interrupt Autovector	30
Level 7 Interrupt Autovector	31
Trap Instruction Vectors	32-47
[unassigned, reserved]	48-63
User Interrupt Vectors	64-255

Note: Multiple errors will give more than one set of bombs, making interpretation difficult.

PACIFIC RIM COMPUTER AND COMMUNICATIONS SHOW

by Terry Schreiber, Z*NET Canada

Vancouver B.C. Canada:

Atari (Canada) Corp. attended the Pacific Rim Computer and Communications show, held at the Vancouver Trade and Convention Centre January 14-16, 1991. Nine Canadian dealers and lots of MIDI music personalities, and well as many Atari officials participated.

At the show, Atari Canada announced the new Mega 1 STE. Available exclusively for Canada at this point, the one meg unit contains no hard drive but is fully upgradable. Including monochrome monitor, the suggested list is $1295.00 CDN. The Mega 4 STE is at a suggested list of $2495.00, when you subtract the cost of a monitor ($200.00), that is a $1400.00 saving. I am sure that someone will find four megs of Simms chips and a fifty meg hard drive for a lot less than that.

Tim Breck demonstrated the Atari's MIDI capabilities on stage to the delight of show attendees. Tim plays a combination of guitar and keyboards with drums, bass and other effects being supplied by the Atari computer.

The Atari booth is a story in itself. Although not the biggest at the show, I believe it is the highest and best designed. The Atari booth is a modular system that can be assembled in many configurations. The system was designed by Canex and is an amazing piece of design of Plexiglass, plastics and aluminum. The Tower section sports a huge illuminated Atari sign, stage and counter with drawer space for storage of flyers, extra cables and parts.

On display in the booth were two TT's, one on color and one on monochrome. The main interest software on these machines was Calamus and Dynacadd. Portfolios, some being used with PC's were also on display. This area was never lacking for attendance. Mega STE's were continuously running demos. Two Mega 4 computers were set in another area demonstrating the networking capabilities of the Atari. Stacys were abundant everywhere. I believe six in total were connected to MIDI equipment and a Spectre GCR. One of the units contained PC-Speed, also proving to be a big draw to DOS users. DOS users also checked out the Atari PC4's running Windows and DynaCadd PC. Some people I talked to were even surprised that Atari had anything DOS compatible. 1040STE's were scattered throughout the booth running MIDI, Degas, LDW Power, virtually anything that was available to show.

I noticed the absence of the Lynx and any game related software. This was a business show and a very impressive showing by Atari.

The last day was actually the best day. Attendance at the Atari Booth was excellent. Sales Reps were all but done in from the three day event and were glad but still somewhat sad that this was the last day. Atari had accomplished what they set out to do - awaken the business community to its products.

Murray Brown, Atari Canada's Western Sales Rep, was extremely pleased by the Dealer and VAR enquiries during the show. "Portfolio was the biggest hit with the resellers but the whole product line did extremely well", he said.

Other Notes from the show: Commodore did not attend. Next Computers was demonstrating their jet black beauty with a lot of activity in and around the booth area. I actually didn't get close enough at the time for hands on but did notice they were about ten times busier than the Apple Display area. Reports from people who did have hands on experience state that if you are using an Atari now you will be greatly disappointed in the Next mouse control.

Interview with Nathan Potechin of ISD *at the Pacific Rim Show by Terry Schreiber*

TS› With so many developers leaving the Atari platform - Does ISD have any plans of going into other machines?

NP› Yes. We currently have a DOS and Amiga version of Dynacadd available and we do plan on versions of our products for other platforms. This is not to say we will be forgetting the Atari - far from it. It is a great machine. I'll give you a for instance. I was demonstrating Calamus earlier to a person who was using Pagemaker on a DOS machine. He said he had five minutes to spare, twenty minutes later he walked away with brochures that he picked up and a retailers business card. That customers next machine will be an Atari.

TS› How do you feel Atari is doing as a business machine?

NP› Atari is trying very hard to get into the business market - just look at this booth. The costs for attending this type of show are mind-boggling. You have the cost of the booth, space rental, transportation, accommodation and lots of other expenses as well. I think Atari is doing extremely well here by the amount of people attending the booth. There are twelve people working in the booth and at times twenty-four wouldn't be enough to handle the crowd. Atari is doing a lot more in business sales than it did a year ago. It takes time to take a piece of the market that was primarily held by Mac and DOS but with products like Calamus, DynaCadd, Wordflair, Pagestream and the like, Atari is becoming recognized in the business field.

TS› When will we see the new version of Calamus?

NP› Soon, that is all I can say at this time. It is being put together by a group of programmers in different areas - each sends in his code and then it is added in. This takes time to check and compile and then re-edit. All I can say is that it is coming and to be patient.

TS› Is ISD working on something new for the Atari now?

NP› ISD is always kicking around ideas, we have made a commitment to the Atari market and its users. Our support, I have been told, is second to none in the Atari World. We will continue to support the Atari market and have no intentions of leaving it.

TS› One last question before we get back to the booth. Do you feel 1991 will be the year of the Atari?

NP› That is somewhat of a loaded question. I feel every year is the year of Atari. Every year there is new product released - every year there is more and more software available. I keep hearing about this "Year of Atari"... the year of Atari is now. Atari is now. If everyone is sitting back and is waiting for something to happen perhaps they had better take a second look at what is already here. Atari has the TT products, Mega STE's, 1040 STE's, Stacy, Portfolio, DOS boxes, Harddrives, CD Rom, 44 Meg Syquest drives, and for gamers the Lynx. Software-wise you have wordprocessors, spreadsheets, databases, accounting packages, point of sale packages, CAD software, games of all types and of course Calamus for desktop publishing. I think anyone who is sitting on the fence about buying a machine is missing the boat.

The Electronic Global Village

by John Clarke, Z*NET New Zealand

The 'Global village' continues to shrink.

It was not long ago I first picked up my first Z*Net and started reading about all the great things happening half a world away. Now some three years later it is great to be able to be part of the rapidly moving Atari world.

With the advent of on-line services being able to be accessed from most countries world wide it has brought the Atari community closer together. With services like GEnie we had this week people in the weekly RTC from Germany, Japan, Australia, Canada, United States and New Zealand. This brings a true international flavour to us.

The amount of quality public domain files available on GEnie is second to none. Imagine GEnie as the largest PD store in the world and you would not be wrong. The latest and greatest software gets its airing in the files section. Not to be outdone by the files area is the 'BB' or bulletin Board section, where you get things from heated debates to help with Calamus or even help directly from Atari itself. The resource in this area is the best available, and outdoes any of the other systems I personally have seen.

Now that GEnie has established itself as THE Atari-Online resource world wide it is great to able to pop on there and ask questions from the developers of sorts of software and interact with them in the RoundTable Conferences. This would not have been possible a few years ago from our part of the world as the Public Data Network did not allow access into these on-line services. Where ever I go, whether on a BBS, or Usenet, or even reading computer magazines, I continually see mentions of GEnie, so if you do not have access onto GEnie yet I suggest as a New Years resolution you attempt to gain access.

Another on-line service that has been a backbone to international users is CompuServe. For some five years now, people in the pacific have been able to pop on and interact with users world wide. Now that the good folks at Compuserve have allowed access into Usenet/Internet for messaging, it has opened a whole new world to its users who have not been able to access "The NETs". By a whole new world I mean exactly that. You can now drop mail into your local Usenet/Internet/bio-net/aarnet and the likes, and if you know the user's Compuserve ID, it will pop out in his mailbox in the USA. For instance, when you download some public domain software or get a disk that says support is available on Compuserve and authors mail address is 72000,355, all you do is address it to him or her like this: 72000.3555-compuserve.com.usa . Your mail is then dropped into their mailbox with your question/compliment/gripe. Compuserve is truly interfacing users world wide.

We have seen a flurry of activity from Atari and many of 3rd party developers. With the help of these on line services and online magazines like Z*Net, events have been announced worldwide within hours of the actual happenings. Things that spring to my mind are the Atari shows in America like the WACE/PACE/Comdex shows. With the availability of digitized pictures from Z*Net I have enjoyed the ability to see the faces, places, and equipment that I would not normally see, half a world away.

The highlight of my computer experience to date has to be the availability of an entire world of Atari users via all the on line services and BBS. This has brought the old saying of a "GLOBAL VILLAGE" well and truly home to me. It can and will for you too... if you take advantage of it!

PORTFOLIO PD SHELF

Compiled by Nor Scavok

The following list was compiled from new uploads to CompuServe's APORTFOLIO Forum and the GEnie Portfolio Roundtable. Some were tested locally and comments added to the descriptions already available.

SNATCH.ZIP Here is a Terminate and Stay Resident Utility that you can run with your favorite painting program on your PC and create PGF files suitable for viewing on your Portfolio. Once the file is created, transfer it to your Portfolio and view it with PGSHOW.

PGS110.ZIP PGSHOW 1.10 - The FULL-FEATURED Portfolio Graphic File Viewer. This new version of PGSHOW supports a new compressed picture format. The same 6 graphics (this time in PGC format) are included. A tool for converting PGF files to PGC format will be available soon. A new version of PGEDIT will also be available. (c)1990 Software Vineyard by Don Messerli

AREACD.BAS Enter the area code and see the stat abbreviation --or-- enter the state abbreviation and see all the area codes for that state. This file was called areacd.100 in the M100 forum on CompuServe. The author originally ported it to compile under Power BASIC, but now it is doctored to work on PBASIC as well. Original program by Don Zeikel, Portfolio port by John Feagans.

FTM11.EXE FTMenu 1.1 - Improved File Section! More Files! Better Spelling! All the changes that have been requested have been implemented. Written by BJ Gleason, Thin Air Labs.

PGF01.ZIP Selection of dithered and converted graphics files for the Portfolio in the PGF format. You MUST have PGRCOM or PGSHOW.EXE to view these file.

PGEDIT.ZIP PGEDIT 1.00 - The Portfolio Graphic Editor. This program lets you create, modify, and edit PGF files for use with PGSHOW, PGRCOM, and PBASIC 3.1. PGEDIT does not run on the Portfolio. It requires a desktop PC with 512K of RAM (360K free), VGA card, and Microsoft compatible mouse. All of the contents of PGSHO101.ZIP are also included in this file by Don Messerli.

PGRCOM Here is the smallest DOS command to display .PGF file - 63 bytes. The syntax if PGF filename.PGF You must include the entire filename. The picture is displayed an waits for a keypress. Written by BJ Gleason.

FS.EXE A flight simulator for the Portfolio! Needless to say, an executable of this size makes certain compromises... but your imagination fills in the blanks. You can simulate a color display if you have some colored cellophane.

FT4LPT.ARC A DEBUG script file and docs to hack FT.COM to use the second printer port LPT2: To let one port be dedicated to talking to your little friend.

QUICK.ZIP If you have Quicken on your home computer, get this program for your Portfolio! This will let you keep track of your transactions on the road, and then you can import the file directly into Quicken when you get back to home base. Shareware. Uses Portfolio-only features.

PF11.ZIP Significant upgrade to PF10 - Move, Mark, Etc. Turbo Pascal Source included. File manager for the Atari Portfolio similar to FM or DR/CO from PCMAGNET. Small. Bug correction for hang when copying.

OTHELL.EXE Othello for the Portfolio by BJ Gleason

FENCE.EXE Also by BJ Gleason. The game of Fences... hit the target by putting up fences to bounce the ball...

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